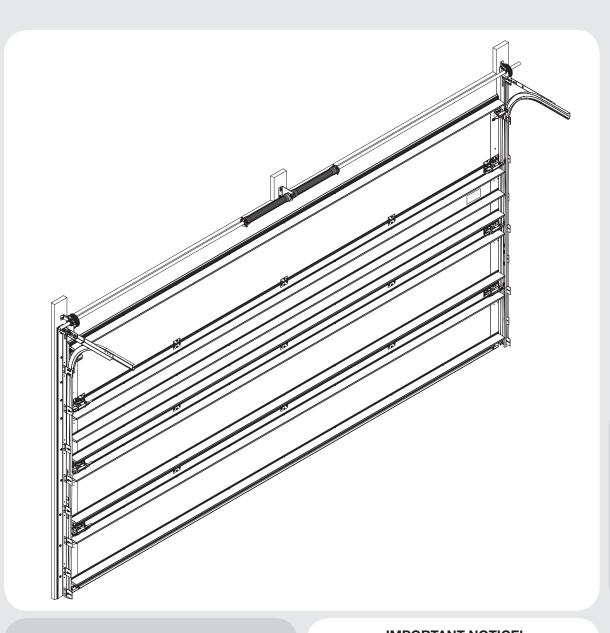


9800 Light Commercial Windload

Torsion Spring

Installation Instructions and Owner's Manual



Wayne-Dalton Corp. P.O. Box 67 Mt. Hope, OH 44660 www.wayne-dalton.com

IMPORTANT NOTICE!

Read these instructions carefully before attempting installation. If in question about any of the procedures, do not perform the work. Instead, have a trained door systems technician do the installation or repairs.

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Definition of key words used in this manual: ⚠ WARNING

INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN SEVERE OR FATAL INJURY.

CAUTION: PROPERTY DAMAGE OR INJURY CAN RESULT FROM FAILURE TO FOLLOW INSTRUCTIONS.

IMPORTANT: REQUIRED STEP FOR SAFE AND PROPER DOOR OPERATION.

NOTE: Information assuring proper installation of the door.

MARNING TO AVOID POSSIBLE INJURY, READ THESE

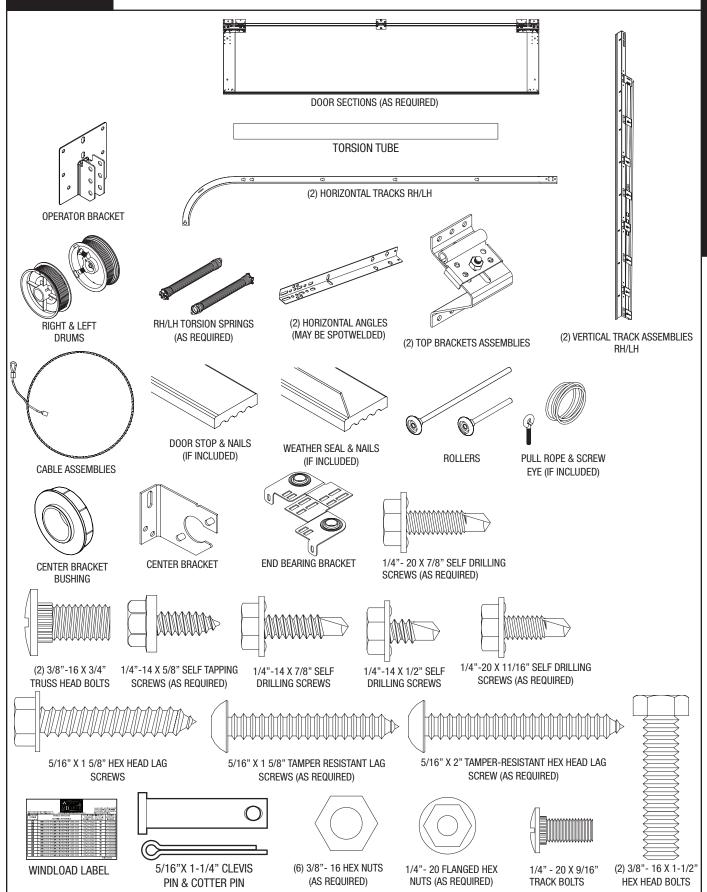
INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING INSTALLATION. IF IN QUESTION ABOUT ANY OF THE PROCEDURES. DO NOT PERFORM THE WORK. **INSTEAD, HAVE A TRAINED DOOR SYSTEMS** TECHNICIAN DO THE INSTALLATION OR REPAIRS.

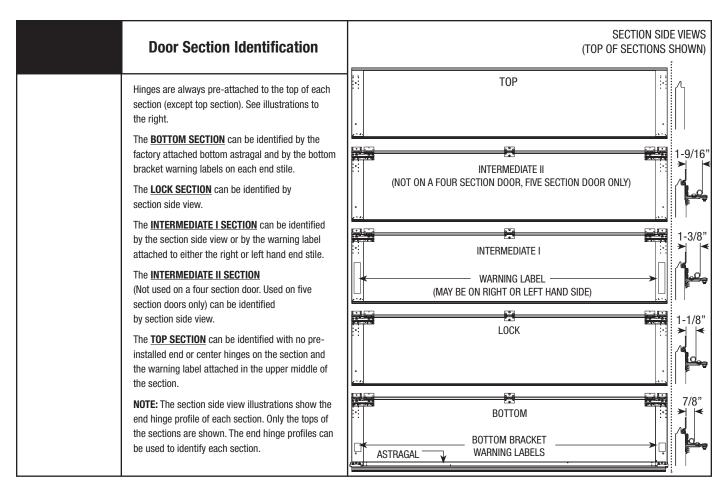
- 1. READ AND FOLLOW ALL INSTALLATION INSTRUCTIONS.
- 2. Wear protective gloves during installation to avoid possible cuts from sharp metal edges.
- 3. It is always recommended to wear eye protection when using tools, otherwise eye injury could result.
- 4. Avoid installing your new door on windy days. Door could fall during the installation causing severe or fatal injury.
- 5. Doors 12' 0" wide and over should be installed by two persons, to avoid possible injury.
- 6. Operate door ONLY when it is properly adjusted and free from obstructions.
- 7. If a door becomes hard to operate, inoperative or is damaged, immediately have necessary adjustments and/or repairs made by a trained door system technician using proper tools and instructions.
- 8. DO NOT stand or walk under a moving door, or permit anybody to stand or walk under an electrically operated door.
- DO NOT place fingers or hands into open section joints when closing a door. Use lift handles/gripping points when operating door manually.
- 10. DO NOT permit children to operate garage door or door controls. Severe or fatal injury could result, should the child become entrapped between the door and the floor.
- 11. Due to constant extreme spring tension, DO NOT attempt any adjustment, repair or alteration to any part of the door, especially to springs, spring brackets, bottom corner brackets, red colored fasteners, cables or supports. To avoid possible severe or fatal injury, have any such work performed by a trained door systems technician using proper tools and instructions.
- 12. On electrically operated doors, pull down ropes must be removed and locks must be removed or made inoperative in the open (unlocked) position.
- 13. Top section of door may need to be reinforced when attaching an electric opener. Check door and/or opener manufacturer's instructions.
- 14. VISUALLY inspect door and hardware monthly for worn and or broken parts. Check to ensure door operates freely.
- 15. Test electric opener's safety features monthly, following opener manufacturer's instructions.
- 16. NEVER hang tools, bicycles, hoses, clothing or anything else from horizontal tracks. Track systems are not intended or designed to support extra weight.

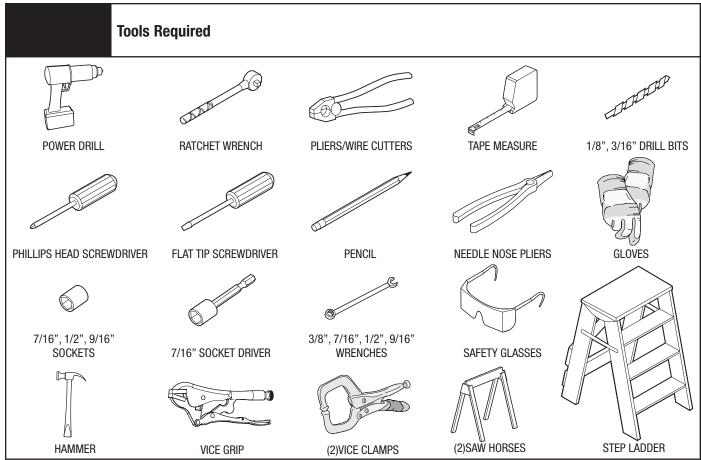
After installation is complete, fasten this manual near garage door.

Package Contents

NOTE: DEPENDING ON THE DOOR MODEL, SOME PARTS LISTED WILL NOT BE SUPPLIED IF NOT NECESSARY. REAR SUPPORTS MAY NOT BE INCLUDED WITH YOUR DOOR.







Removing An Existing Door

IMPORTANT: COUNTERBALANCE SPRING TENSION MUST ALWAYS BE RELEASED BEFORE ANY ATTEMPT IS MADE TO START REMOVING AN EXISTING DOOR.

△ WARNING

A POWERFUL SPRING RELEASING ITS ENERGY SUDDENLY CAN CAUSE SEVERE OR FATAL INJURY. TO AVOID INJURY HAVE A TRAINED DOOR SYSTEMS TECHNICIAN, USING PROPER TOOLS AND INSTRUCTIONS, RELEASE THE SPRING TENSION.

For detailed information see supplemental instructions "Removing an Existing Door /Preparing the Opening". These instructions are available at no charge from Wayne-Dalton Corp., P.O. Box 67, Mt. Hope, OH 44660, or at www.wayne-dalton.com.

Preparing the Opening

△ WARNING

FAILURE TO SECURELY ATTACH A SUITABLE

MOUNTING PAD TO STRUCTURALLY SOUND FRAMING COULD CAUSE SPRINGS TO VIOLENTLY PULL MOUNTING PAD FROM WALL, RESULTING IN SEVERE OR FATAL INJURY.

If you just removed your existing door or you are installing a new door, complete all steps in PREPARING THE OPENING.

To ensure secure mounting of track brackets, side and center bearing brackets, or steel angles to new or retro-fit construction, it is recommended to follow the procedures outlined in DASMA Technical Data Sheets #156, #161 and #164 at www.dasma.com.

The inside perimeter of your garage door opening should be framed with wood jamb and header material. The jambs and header must be securely fastened to sound framing members. It is recommended that 2" x 6" lumber be used. The jambs must be plumb and the header level. The jambs should extend a minimum of 14" (356 mm) above the top of the opening for Torsion spring applications. For low headroom applications, the jambs should extend to the ceiling height. Minimum side clearance required, from the opening to the wall, is 3-1/2" (89 mm).

IMPORTANT: Closely inspect existing jambs, header and mounting surface. Any wood found not to be sound, must be replaced.

For torsion spring applications, a suitable mounting surface must be firmly attached to the wall, above the header at the center of the opening. The mounting surface must be 2" x 6" lumber minimum (Select southern yellow pine lumber. Do not use lumber marked as spruce-pine-fur or SPF). The mounting surface must be securely attached to the wall with four (4) 3/8" anchors for masonry constructions or four (4) 5/16" x 4" lag screws for wood construction

NOTE: Drill 3/16" pilot holes in the mounting surface to avoid splitting the lumber. Do not attach the mounting surface with nails.

Weather Seal (May Not Be Included):

Cut the weather seal (if necessary) to fit the header and jambs.

Align the header seal 1/8" to 1/4" inside the header and temporarily attach it to the header with equally spaced nails. Next, fit the jamb seals up tight against the header seal and 1/8" to 1/4" inside the jamb. Temporarily attach the jamb seals with equally spaced nails approximately 12" to 18" apart. This will keep the bottom section from falling out of the opening during installation.

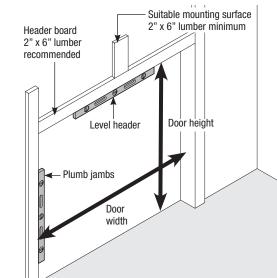
NOTE: Do not permanently attach weather seal to the jamb at this time.

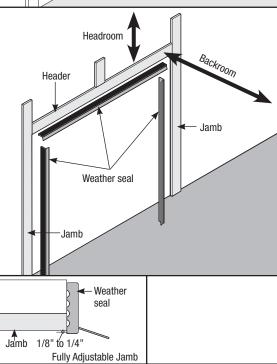
HEADROOM REQUIREMENT: Headroom is defined as the space needed above the top of the door for tracks, springs, etc. to allow the door to open properly. If the door is to be motor operated, 2-1/2" (64 mm) of additional headroom is required.

BACKROOM REQUIREMENT: Backroom is defined as the distance needed from the opening back into the garage to allow the door to open fully.

HEADROOM REQUIREMENT

Track Type	Min. Headroom
15" Radius Track	14-1/2" (368mm)





BACKKUUWI KEQUIKEIVIEN I						
DOOR HEIGHT	TRACK	MANUAL LIFT	MOTOR OPERATED			
9' 0"	15" Radius	126" (3200mm)	164"(4166mm)			
10' 0"	15" Radius	138" (3505mm)	176" (4470mm)			

DACKDOOM DECLUDEMENT

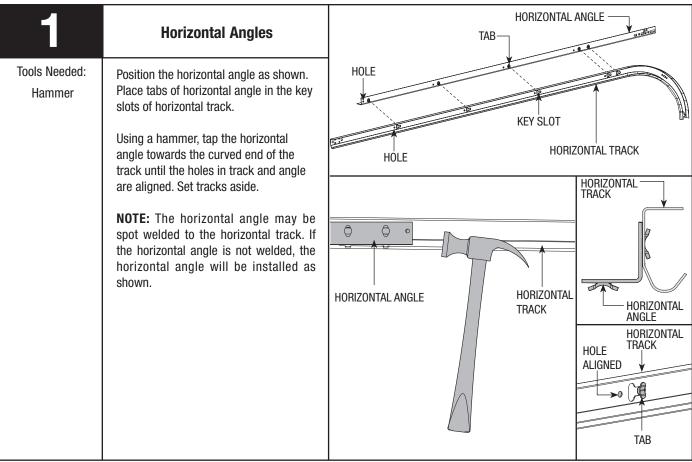
Installation

Begin the installation of the door by checking the opening. It must be the same size as the door. Vertical jambs must be plumb with header. Side clearance, from edge of door to wall, must be a minimum of 3-1/2" (89mm) on each side.

IMPORTANT: STAINLESS STEEL OR PT 2000 COATED LAG SCREWS <u>MUST</u> BE USED WHEN INSTALLING CENTER BEARING BRACKETS, END BRACKETS, JAMB BRACKETS, OPERATOR MOUNTING/SUPPORT BRACKETS AND DISCONNECT BRACKETS ON TREATED LUMBER (PRESERVATIVE-TREATED). STAINLESS STEEL OR PT 2000 COATED LAG SCREWS ARE <u>NOT</u> NECESSARY WHEN INSTALLING PRODUCTS ON UNTREATED LUMBER.

NOTE: It is recommended that 5/16" lag screws be pilot drilled using a 3/16" drill bit prior to fastening.

NOTE: Use this manual in conjunction with the windload specification options code provided with your door.



Counterbalance Cables

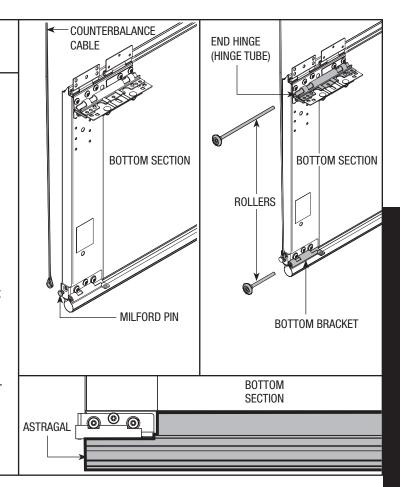
Tools Needed: None

IMPORTANT: RIGHT AND LEFT HAND IS ALWAYS DETERMINED FROM INSIDE THE BUILDING LOOKING OUT.

NOTE: For door section identification see page 4.

Uncoil the counterbalance cables and slip the loop at the ends of the cables over the milford pins on the bottom section. Insert a short shaft roller in the bottom bracket on the bottom section and a long shaft roller in the end hinge at the top of the bottom section. Repeat for other side.

NOTE: Verify astragal (bottom seal) is aligned with door section. If there is more than 1/2" excess astragal on either side, trim astragal even with door section.



3

U-bars

Tools Needed:

Power Drill 7/16" Socket Driver To determine the placement of u-bars, refer to the 9800 windload u-bar schedule containing your doors windload specification option code.

U-bars must be installed level across the door.

To install a u-bar across the top of a section, the bottom of the u-bar must be aligned with the line on the upper part of the end cap (except u-bars installed across the top of the top section).

NOTE: A u-bar which is installed across the top of the top section must have its top flange aligned with the top of the section.

To install a u-bar across the bottom of a section, the bottom of the u-bar must be aligned with the line on the lower part of the end cap. (1 u-bar) denotes installing a u-bar across the top of the given section. (2 u-bars) denotes installing a u-bar across the bottom and top of the given section. (3 u-bars) denotes installing a u-bar across the bottom, middle, and top of the given section.

9800 Windload U-bar Schedule Option Code 1200					
Total Sections	Bottom	Lock	Intermediate	Intermediate II	Тор
4	2 u-bars	1 u-bar	1 u-bar		1 u-bar
5	2 u-bars	1 u-bar	1 u-bar	1 u-bar	1 u-bar

9800 Windload U-bar Schedule Option Code 1201					
Total Sections	Bottom	Lock	Intermediate	Intermediate II	Тор
4	2 u-bars	2 u-bars	2 u-bars		1 u-bar
5	2 u-bars	2 u-bars	2 u-bars	2 u-bars	1 u-bar

9800 Windload U-bar Schedule Option Code 1202						
Total Sections	Bottom	Lock	Intermediate	Intermediate II	Тор	
4	2 u-bars	2 u-bars	3 u-bars		1 u-bar	
5	2 u-bars	2 u-bars	2 u-bars	3 u-bars	1 u-bar	

9800 Windload U-bar Schedule Option Code 1220					
Total Sections	Bottom	Lock	Intermediate	Intermediate II	Тор
4	2 u-bars	1 u-bar	1 u-bar		1 u-bar
5	2 u-bars	1 u-bar	1 u-bar	1 u-bar	1 u-bar

Tools Needed:

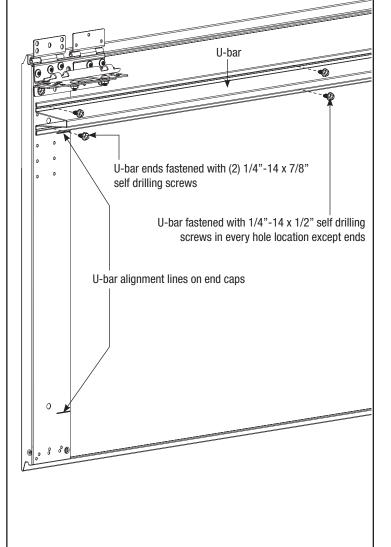
To install a u-bar across the middle of a section, align the horizontal center line of the u-bar with the center line of the section.

For Windload specification option codes 1200, 1201, and 1202, all u-bars must be attached with 1 fastener at each hole location along the u-bar, which is a minimum of 10 fasteners per u-bar. Attach to section with 1/4"-14 x 1/2" self drilling screws, except at ends, which are attached with 1/4"- 14 x 7/8" self drilling screws.

For Windload specification option codes 1220 and 1221 all u-bars must be attached with 1 fastener at each hole location along the u-bar, which is a minimum of 18 fasteners per u-bar on a 16' wide door, and a minimum of 12 fasteners per u-bar on a 10' and a 12' wide door. Attach to section with 1/4"-14 x 1/2" self drilling screws, except at ends, which are attached with 1/4"-14 x 7/8" self drilling screws.

9800 Windload U-bar Schedule Option Code 1221						
Total Sections	Bottom	Lock	Intermediate	Intermediate II	Тор	
4	2 u-bars	2 u-bars	3 u-bars		1 u-bar	
5	2 u-bars	2 u-bars	2 u-bars	3 u-bars	1 u-bar	

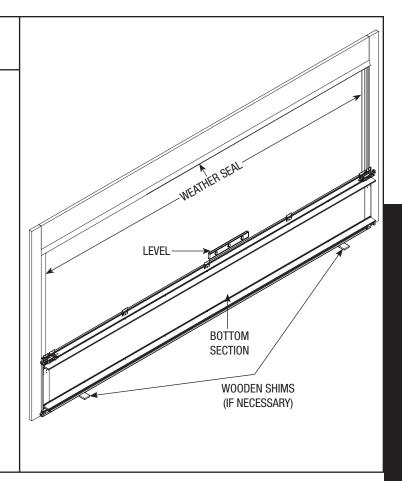
Attaching u-bar to section.



Bottom Section

Tools Needed: Level

Center the bottom section in the door opening. Level section using wooden shims (if necessary) under the bottom section.



5

Vertical Track Assembly

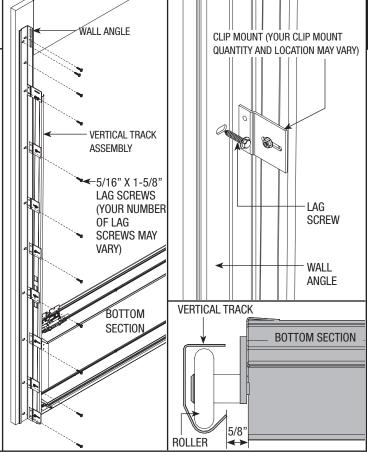
Tools Needed:
Power Drill
3/16" Drill Bit
7/16" Socket
Driver
Level

Tape Measure

Step Ladder

(Concrete Mounting) 3/8" Simpson Titen HD, 2-3/4" Min Embed Into Min 2000 PSI Concrete at 15" 0.C. Max. IMPORTANT: THE TOPS OF THE VERTICAL TRACKS MUST BE LEVEL FROM SIDE TO SIDE. IF THE BOTTOM SECTION WAS SHIMMED TO LEVEL IT. THE VERTICAL TRACK ON THE SHIMMED SIDE, MUST BE RAISED THE HEIGHT OF THE SHIM.

Position the left hand vertical track assembly over the rollers of the bottom section. Make sure the counterbalance cable is located between the rollers and the door jamb. Drill 3/16" pilot holes for the lag screws. Loosely attach the wall angle to the jamb using 5/16" x 1-5/8" lag screws. Tighten the bottom lag screw, securing the wall angle to jamb, maintaining 5/8" track spacing between the vertical track and bottom section. Repeat for the right hand side.



Tools Needed: Power Drill 7/16" Socket Driver

Stacking Sections

NOTE: For door section identification see page 4.

NOTE: Make sure hinge leafs are flipped down, when stacking another section on top.

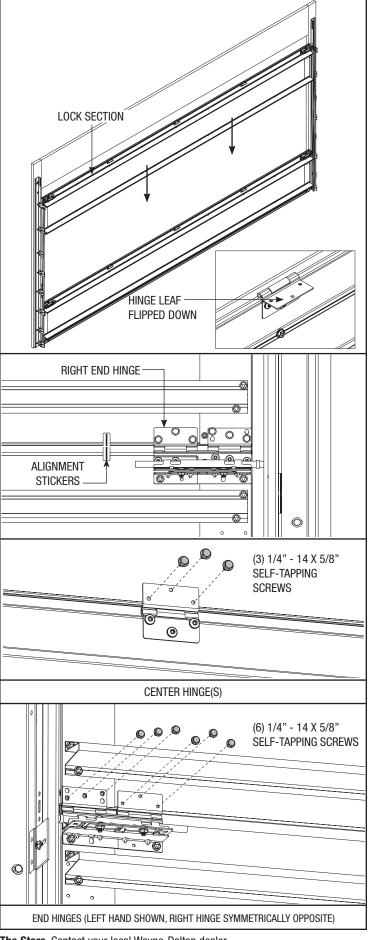
Place rollers in hinge tubes of the second section (lock section). With assistance, lift second section and guide rollers into the vertical tracks.

Align the vertical lines on the alignment stickers, located on the right hand side on the back of the door sections. Also, verify that the stiles on the front of the door are aligned properly, prior to securing the hinges.

Keep sections properly aligned and fasten hinges, to connect the sections using 1/4" - 14 x 5/8" self-tapping screws. Fasten center hinge(s) first and end hinges last. Repeat for other section(s) except top section.

IMPORTANT: PUSH & HOLD THE HINGE LEAFS AGAINST SECTION WHILE SECURING WITH 1/4" - 14 X 5/8" SELF-TAPPING SCREWS. END HINGES HAVE (6) SCREWS AND CENTER HINGES HAVE (3) SCREWS.

NOTE: Install lock at this time (sold separately). See instructions for OPTIONAL SIDE LOCK INSTALLATION on page 22.

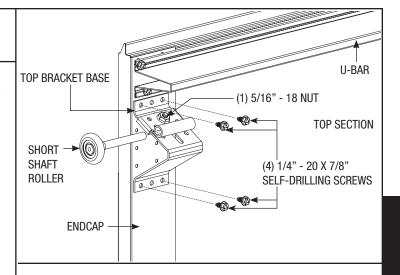


Top Brackets

Tools Needed: Power Drill 7/16" Socket Driver Place the top bracket base against the bottom of the u-bar, even with the edge of the endcap and fasten using (4) 1/4" - 20 x 7/8" self-drilling screws. Loosen the 5/16" - 18 nut. Repeat for other side.

The top bracket slide will be adjusted and tightened in Step 11.

Insert a short shafted roller into the top bracket slide.



Tools Needed:
Power Drill
7/16" Socket
Driver

Operator Bracket

NOTE: If installing a trolley type operator, complete this step. If not, skip this step and continue with Step 12.

IMPORTANT: WHEN CONNECTING A
TROLLEY TYPE GARAGE DOOR OPENER
TO THIS DOOR, A WAYNE-DALTON
OPENER/TROLLEY BRACKET MUST
BE SECURELY ATTACHED TO THE TOP
SECTION OF THE DOOR, ALONG
WITH ANY U-BARS PROVIDED WITH
THE DOOR. THE INSTALLATION OF THE
OPENER MUST BE ACCORDING TO
MANUFACTURER'S INSTRUCTIONS AND
FORCE SETTINGS MUST BE ADJUSTED
PROPERLY.

NOTE: For retro fit applications, the operator bracket must be aligned with an existing operator

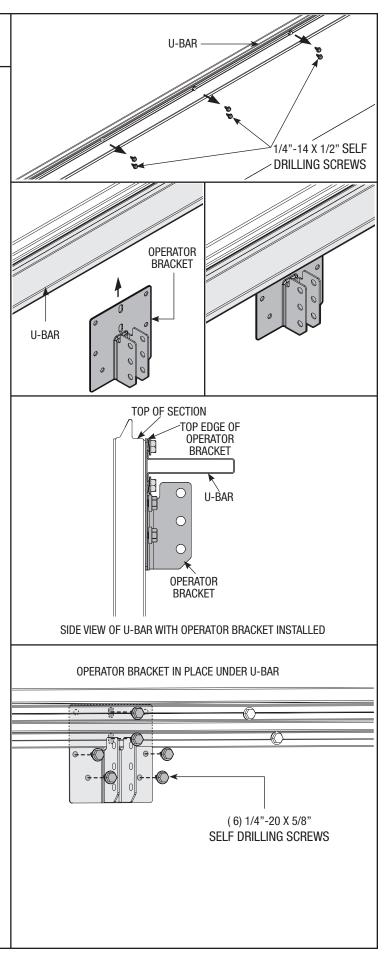
NOTE: Prior to fastening operator bracket to top section, ensure the top edge of operator bracket is aligned with the top edge of the section as shown on far right.

Remove and retain,

(4-6) 1/4"-14 x 1/2" self drilling screws from the center of the u-bar, allowing the operator bracket to slide between the section and the u-bar.

Locate the center of the top section and slide operator bracket under u-bar until the operator bracket is seated against the u-bar flange.

Attach the operator bracket using (6) 1/4" $-20 \times 5/8$ " self drilling screws (as shown). Finish re-attaching the u-bar using the self drilling screws removed previously.



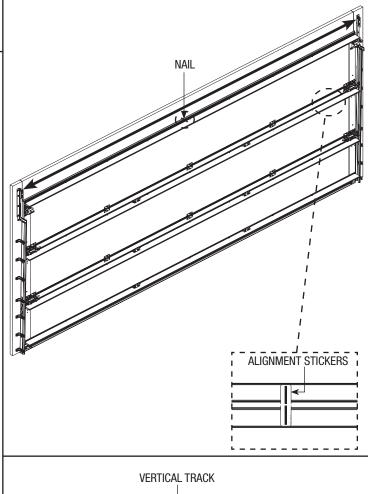
Top Section

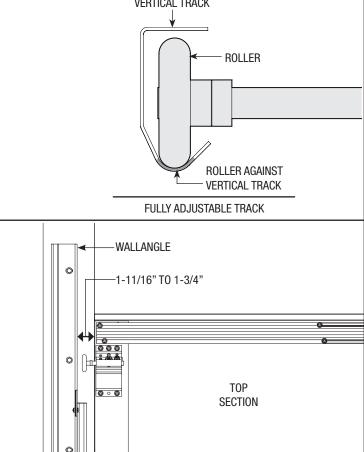
Tools Needed: Hammer Step Ladder Place the top section in the opening and vertically align with lower sections. Align vertical lines on the alignment stickers located on the right hand side on the back of the door. Temporarily secure the top section by driving a nail in the header near the center of the door and bending it over the top section.

Flip up hinge leafs, hold tight against section, and fasten center hinges first, and end hinges last. (Refer to Step 6). Position wallangle between 1-11/16" (43 mm) to 1-3/4" (44 mm) from the edge of the door; tighten the bottom lag screw in the wallangle. Wallangle must be parallel to the door section. Repeat for opposite side.

IMPORTANT: THE DIMENSION BETWEEN THE WALLANGLES MUST BE DOOR WIDTH PLUS 3-3/8" (86MM) TO 3-1/2" (89 MM) FOR SMOOTH, SAFE DOOR OPERATION.

Complete the wallangle assembly installation by tightening all the lag screws. Push the vertical track against the rollers so that the rollers are touching the deepest part of the curved side of the track (see illustration); tighten all the track bolts and nuts. Repeat for opposite side.





Tools Needed:
9/16" Socket
7/16" Socket
Ratchet Wrench
9/16" Wrench
Level
Step Ladder

Attaching Horizontal Track to Wall angle

To install horizontal track, place the curved end over the top roller. Align the bottom of the horizontal track with the vertical track. Hand tighten the horizontal track to the wallangle with (2) 1/4"-20 x 9/16" track bolts and (2) 1/4" - 20 flange hex nuts. Repeat for other side.

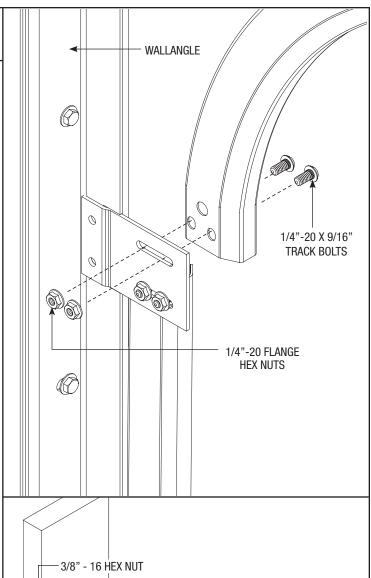
△ WARNING

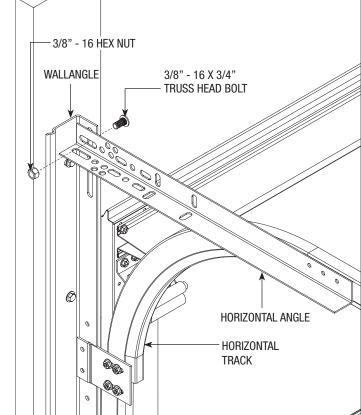
DO NOT RAISE DOOR UNTIL
HORIZONTAL TRACKS ARE SECURED
AT REAR, AS OUTLINED IN STEP 19, OR
DOOR COULD FALL FROM OVERHEAD
POSITION CAUSING SEVERE OR FATAL
INJURY.

Level the horizontal track assembly and bolt the horizontal angle to the slot in the wallangle using (1) 3/8" - 16 x 3/4" truss head bolt and (1) 3/8" - 16 hex nut. Repeat for other side.

Remove the nail that was temporarily holding the top section in place, installed in Step 9.

IMPORTANT: FAILURE TO REMOVE NAIL BEFORE ATTEMPTING TO RAISE DOOR COULD CAUSE PERMANENT DAMAGE TO TOP SECTION.





Tools Needed: Power Drill

7/16" Socket Driver

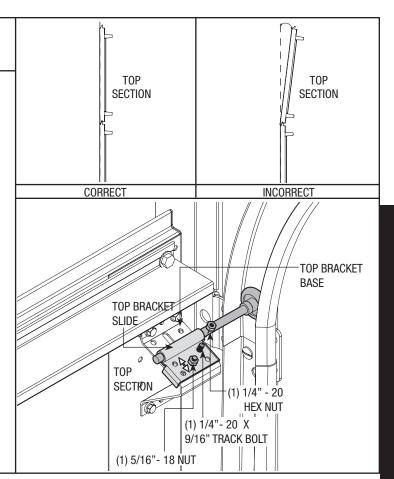
7/16" Wrench

Step Ladder

Adjusting Top Brackets

With horizontal tracks installed, you can now adjust the top brackets. Vertically align the top section of the door with the lower sections. Once aligned, position the top bracket slide, out against the horizontal track.

Maintaining the slide's position, tighten the (1) 5/16" - 18 nut to secure the slide to the top bracket. Next lock the top slide into place on the top bracket using (1) 1/4" - 20 x 9/16" track bolt and (1) 1/4" - 20 hex nut through any two aligning holes. Repeat for other side.



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Tools Needed: Power Drill 7/16" Socket Driver 9/16" Socket Ratchet Wrench 9/16" Wrench Step Ladder

Torsion End Bearing Brackets

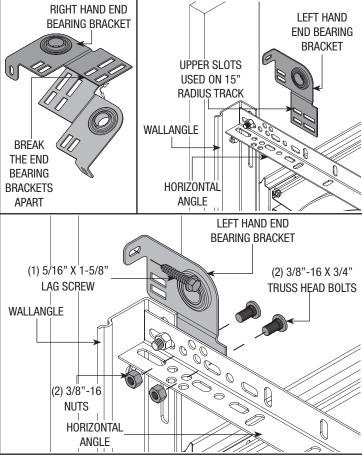
End bearing brackets are right and left hand. Break the end bearing brackets apart.

Starting on the left hand side and using the upper slots in the end bearing bracket, position above the wallangle and secure the end bearing bracket to the horizontal angle using (2) 3/8"-16 x 3/4" truss head bolts and (2) 3/8"-16 nuts.

IMPORTANT: END BEARING BRACKETS MUST BE ATTACHED THROUGH THE UPPER SLOTS ON 15" RADIUS TRACK.

Once the bracket is secured to the horizontal angle, secure the top of the end bearing bracket to the jamb using (1) 5/16" x 1-5/8" lag screw. Repeat for right hand side.

NOTE: Right and left hand is always determined from inside the building looking out.

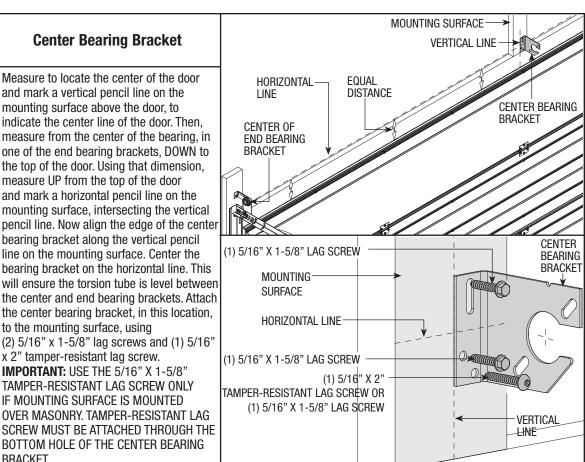


Tools Needed: Power Drill 7/16" Socket Driver Level Tape Measure Pencil 1/4" Torx Bit

Step Ladder

Center Bearing Bracket

Measure to locate the center of the door and mark a vertical pencil line on the mounting surface above the door, to indicate the center line of the door. Then, measure from the center of the bearing, in one of the end bearing brackets. DOWN to the top of the door. Using that dimension, measure UP from the top of the door and mark a horizontal pencil line on the mounting surface, intersecting the vertical pencil line. Now align the edge of the center bearing bracket along the vertical pencil line on the mounting surface. Center the bearing bracket on the horizontal line. This will ensure the torsion tube is level between the center and end bearing brackets. Attach the center bearing bracket, in this location, to the mounting surface, using (2) 5/16" x 1-5/8" lag screws and (1) 5/16" x 2" tamper-resistant lag screw. IMPORTANT: USE THE 5/16" X 1-5/8" TAMPER-RESISTANT LAG SCREW ONLY IF MOUNTING SURFACE IS MOUNTED



Tools Needed: Step Ladder

Torsion Spring Assembly

OVER MASONRY, TAMPER-RESISTANT LAG

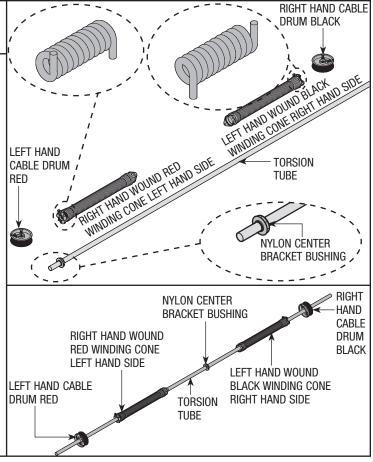
BOTTOM HOLE OF THE CENTER BEARING

BRACKET.

IMPORTANT: RIGHT AND LEFT HAND IS ALWAYS DETERMINED FROM INSIDE THE GARAGE LOOKING OUT.

NOTE: Identify the springs provided as either right hand wound (red winding cone), which goes on the LEFT HAND SIDE or left hand wound (black winding cone), which goes on the RIGHT HAND SIDE.

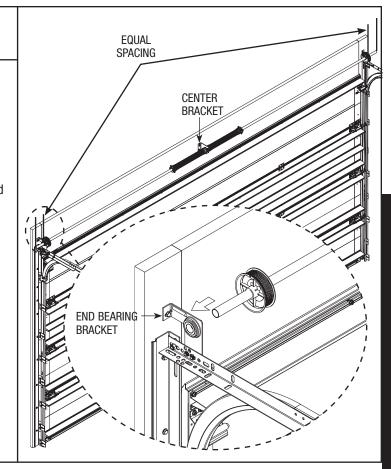
Facing the inside of the door, lay the torsion tube on the floor. Lay the spring with the black color coded winding cone and the black color coded cable drum, at the right hand end of the tube. Lay the spring with the red color coded winding cone and the red color coded cable drum, at the left hand end of the tube.



Tools Needed:

NOTE: The set screws used on all torsion counterbalance winding cones and cable drums, are now colored red. DO NOT identify right and left hand by the set screw color.

Slide the nylon center bushing onto the torsion tube followed by the springs and cable drums. The nylon center bushing, springs and cable drums must be positioned, as shown. With assistance, pick up the torsion assembly and slide one end of the tube through one end bearing bracket. Lay the torsion tube into the center bearing bracket and slide the other end of the tube into the opposite end bearing bracket. Position the torsion tube so that equal amounts of the tube extend out from each end bearing bracket.



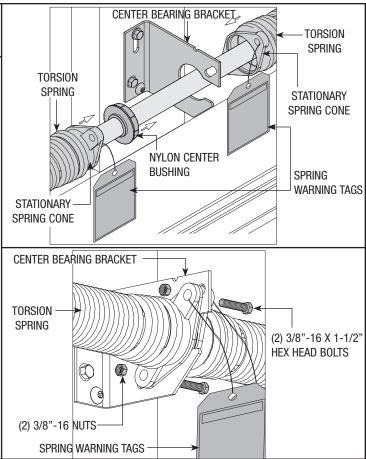
15

Nylon Center Bushing

Tools Needed: Step Ladder

Slide the nylon center bushing into the stationary spring cone at the end of the spring and align the stationary spring cone(s) with the holes in the center bearing bracket. Secure the spring(s) to the center bearing bracket with (2) 3/8"-16 x 1-1/2" hex head bolts and 3/8"-16 nuts.

IMPORTANT: THE SPRING WARNING TAG(S) SUPPLIED MUST BE SECURELY ATTACHED TO THE STATIONARY SPRING CONE IN PLAIN VIEW. SHOULD A REPLACEMENT SPRING WARNING TAG BE REQUIRED, CONTACT WAYNEDALTON CORP. FOR FREE REPLACEMENTS.

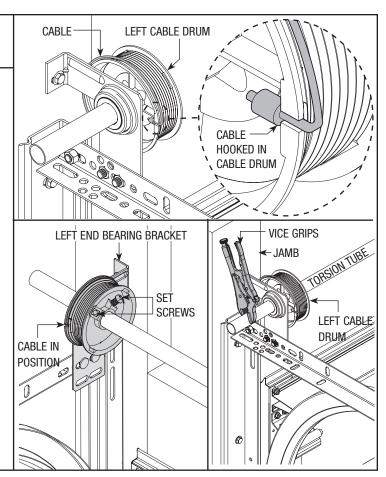


Counterbalance Cables

Tools Needed: Vice Grips 3/8" Wrench Step Ladder

Thread the counterbalance cables around the back side of the left cable drum and verify that there is no cable obstructions. Hook the cables into the drums. Slide the left hand cable drum against the left hand end bearing bracket and tighten the set screws in the drum to 14-15 ft. lbs. of torque (Once set screws contact the tube. tighten screws one full turn). Rotate the left hand drum and torsion tube until cable is taut. Attach vice grips to torsion tube and brace vice grips against jamb to keep cable taut. Slide the right hand cable drum against the right hand end bearing bracket and rotate drum until cable is taut. Tighten set screws in right hand cable drum to 14-15 lbs. of torque (Once set screws contact the tube, tighten screws one full turn).

IMPORTANT: CHECK EACH CABLE, MAKING SURE BOTH ARE SEATED PROPERLY ON THE CABLE DRUMS AND HAVE EQUAL CABLE TENSION.



17

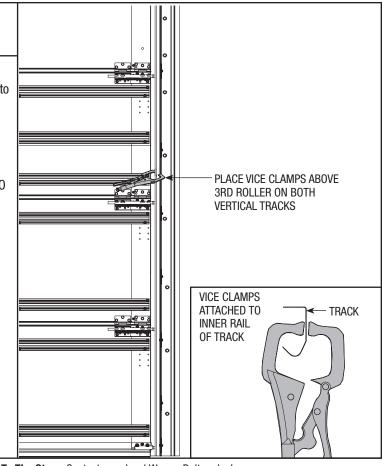
Securing Door for Spring Winding

Tools Needed: (2) Vice Clamps

Place vice clamps onto both vertical tracks just above the third roller. This is to prevent the garage door from raising while winding torsion springs.

⚠ WARNING

FAILURE TO PLACE VICE CLAMPS ONTO VERTICAL TRACKS CAN ALLOW DOOR TO RAISE AND CAUSE SEVERE OR FATAL INJURY.



Tools Needed: Step Ladder 3/8" Wrench Approved Winding Bars

Winding Torsion Spring(s)

Position a ladder slightly to the side of spring so that the winding cone is easily accessible, yet your body is not in direct line with the winding bars. Check the label attached to the spring warning tag for the required number of complete turns to balance your door.

9'0" Door Height = Approx 9-5/8 Turns
10'0" Door Height = Approx 10-1/2 Turns

CAUTION: USE WINDING BARS OF
CORRECT DIAMETER TO WIND SPRINGS.

DO NOT USE SCREWDRIVERS OR OTHER ITEMS TO WIND SPRINGS.

△ WARNING

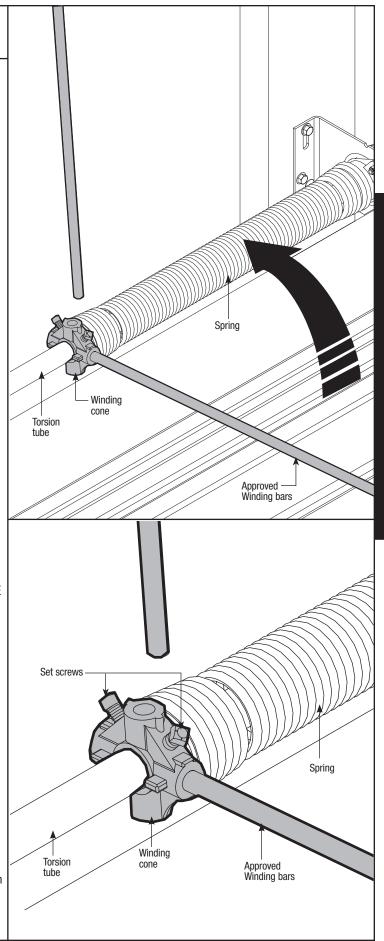
FAILURE TO USE ONLY APPROVED STEEL WINDING BARS OF CORRECT DIAMETER CAN RESULT IN SEVERE OR FATAL INJURY.

△ WARNING

TO AVOID POSSIBLE SEVERE OR FATAL INJURY, IF YOU ARE INEXPERIENCED IN WINDING TORSION SPRINGS, HAVE SPRINGS WOUND BY A TRAINED DOOR SYSTEMS SERVICE TECHNICIAN, USING PROPER TOOLS AND INSTRUCTIONS.

△ WARNING

PRIOR TO WINDING OR MAKING ADJUSTMENTS TO THE SPRINGS, ENSURE YOU'RE WINDING IN THE PROPER DIRECTION AS STATED IN THE INSTALLATION INSTRUCTIONS. OTHERWISE THE SPRING FITTINGS MAY RELEASE FROM SPRING IF NOT WOUND IN THE PROPER DIRECTION AND COULD RESULT IN SEVERE OR FATAL INJURY. Alternately inserting the steel winding bars into the holes of the spring's winding cone, rotate the winding cone upward toward ceiling, 1/4 turn at a time, until the required number of complete turns for your door height is achieved. As the last 1/8 to 1/4 turn is achieved, securely hold winding bar while tightening both set screws in winding cone to 14-15 ft. lbs. of torque (Once set screws contact the tube, tighten screws one full turn). Carefully remove winding bar from winding cone. Proceed to wind the second spring in the same manner. While holding the door down, to prevent it from rising unexpectedly, in the event the spring(s) were overwound, carefully remove vice grips from the torsion tube and the vice clamps from the vertical



Tools Needed:
Ratchet Wrench
1/2" Socket
1/2" Wrench
Vice Clamps

Rear Support

Partially, raise the door until the top section and half of the next section are in a horizontal position. Do not raise door any further since rear of horizontal track is not yet supported.

△ WARNING

RAISING DOOR FURTHER CAN RESULT IN DOOR FALLING AND CAUSE SEVERE OR FATAL INJURY.

Clamp a pair of vice clamps onto the vertical tracks just above the second roller on one side and just below the second roller on the other side. This will prevent the door from raising or lowering while installing the rear support. Using perforated angle, 5/16" x 1-5/8" hex head lag screws and 5/16" bolts with nuts (these materials may not be supplied), fabricate rear support for horizontal tracks. Attach horizontal tracks to the rear supports with 5/16"- 18 x 1-1/4" hex bolts and nuts (may not be supplied). Horizontal tracks must be level and parallel to door within 3/4" maximum of door edge.

⚠ WARNING

KEEP HORIZONTAL TRACK
PARALLEL AND WITHIN 3/4"
MAXIMUM OF DOOR EDGE,
OTHERWISE DOOR COULD FALL,
RESULTING IN SEVERE OR FATAL
INJURY.

IMPORTANT: DO NOT SUPPORT THE WEIGHT OF THE DOOR ON ANY PART OF THE PERFORATED ANGLE HANGER THAT CANTILEVERS 4" OR MORE BEYOND A SOUND FRAMING MEMBER.

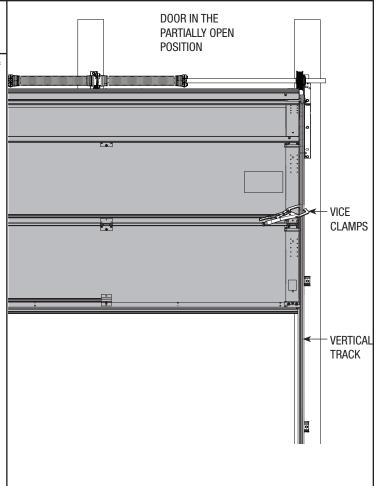
NOTE: If rear supports are to be installed over drywall, use 5/16" x 2" hex head lag screws, and make sure lag screws engage solid structural lumber.

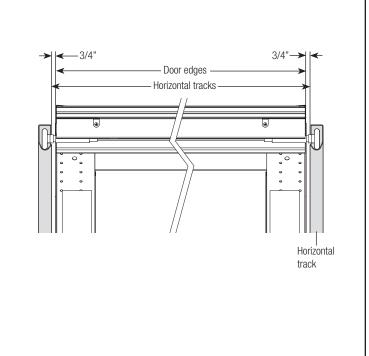
NOTE: 26" perforated angle must be attached to sound framing members and nails should not be used.

Now, permanently attach the weather seal to both door jambs and header. (Temporarily attached in PREPARING THE OPENING on page 5). Avoid pushing weather seal stop too tightly against face of door.

Place the Windload label on the intermediate section as shown.

Now, lift door and check its balance. Adjustments to the required number of turns stated may be necessary. If door raises off floor under spring tension alone, reduce spring tension until door rests on the floor. If the door is hard to raise or drifts down on its own, add spring tension. A poorly balanced door can cause garage door opener operation problems.





Rear Support Continued...

Tools Needed:

△ WARNING

PRIOR TO WINDING OR MAKING
ADJUSTMENTS TO THE SPRINGS,
ENSURE YOU'RE WINDING IN THE
PROPER DIRECTION AS STATED IN THE
INSTALLATION INSTRUCTIONS.
OTHERWISE THE SPRING FITTINGS MAY
RELEASE FROM SPRING IF NOT WOUND
IN THE PROPER DIRECTION AND COULD
RESULT IN SEVERE OR FATAL INJURY.

To adjust spring tension, fully close door. Apply vice clamps to bolt vertical tracks above third roller. On single spring doors, cable tension must be maintained by placing vice grips on torsion tube before loosening set screws in the winding cone. Insert a winding bar into a hole in the winding cone and push upward on the winding bar while carefully loosening the set screws in the winding cone.

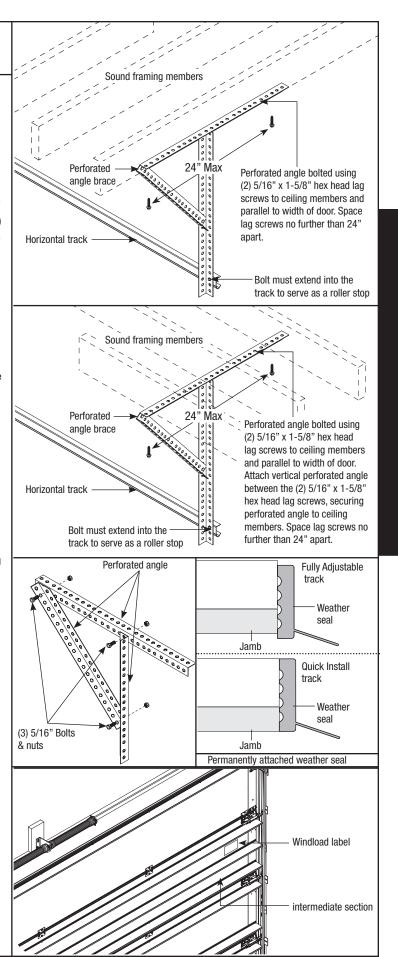
IMPORTANT: BE PREPARED TO SUPPORT THE FULL FORCE OF THE TORSION SPRING ONCE THE SET SCREWS ARE LOOSE.

Carefully adjust spring tension 1/8 to 1/4 turn at a time. Retighten both set screws in the winding cone. Repeat for the other side on double spring systems. RECHECK DOOR BALANCE. DO NOT ADJUST MORE THAN 1/2 TURN FROM THE RECOMMENDED NUMBER OF TURNS.

If the door still does not operate easily, lower the door into the closed position, UNWIND THE SPRING(S) FULLY (Reference the insert "Removing The Old Door/ Preparing The Opening" section on torsion (spring removal), and recheck the following.

- 1.) Check the door for level.
- 2.) Check the torsion tube for level.
- 3.) Check the track spacing.
- 4.) Check the counterbalance cables for equal tension.
- 5.) Check the track for potential obstruction of the rollers.
- 6.) Clamp vice clamps onto track and rewind springs.

IMPORTANT: IF DOOR STILL DOES NOT OPERATE PROPERLY, THEN CONTACT A TRAINED DOOR SYSTEM TECHNICIAN.





Tools Needed:
Power Drill
7/16" Socket
Driver

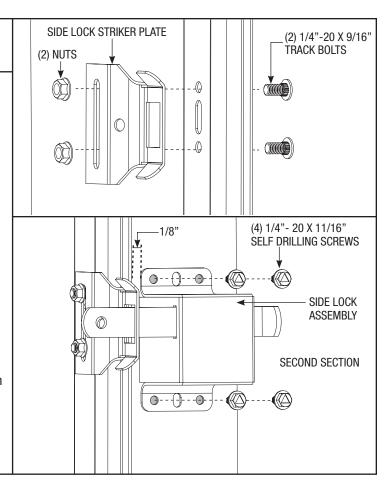
Side Lock

Attach the side lock striker plate to the vertical track, in line with the center of the second door section with (2) 1/4"-20 x 9/16" track bolts and (2) 1/4"-20 nuts. Position the side lock on the second section of the door, aligning it with the square hole in the side lock striker plate. The side lock should be spaced approximately 1/8" from the section edge. Secure the side lock to the section with (4) 1/4"- $20 \times 11/16$ " self drilling screws.

IMPORTANT: SIDE LOCKS MUST BE REMOVED OR MADE INOPERATIVE IN THE UNLOCKED POSITION IF AN OPERATOR IS INSTALLED ON THE DOOR.

NOTE: For windload specification option codes 1220 and 1222, the side lock striker plate and the fifth door jamb from the floor will occupy the same location.

NOTE: After completing this step, continue with step 10 on page 13.





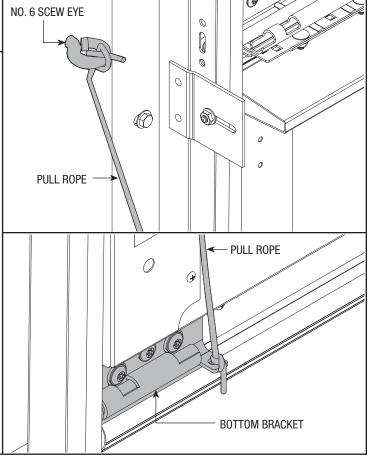
Tools Needed: Power Drill 1/8" Drill Bit

Pull Rope

△ WARNING

DO NOT INSTALL PULL ROPES ON DOORS WITH ELECTRIC OPERATORS. CHILDREN MAY BECOME ENTANGLED IN THE ROPE CAUSING SEVERE OR FATAL INJURY.

Measure and mark the jamb on the right of left side approximately 48" to 50" (1220 to 1270 mm) from the floor. Drill 1/8" pilot hole for No. 6 screw eye. Tie the pull rope to the No. 6 screw eye and to the bottom bracket as shown.





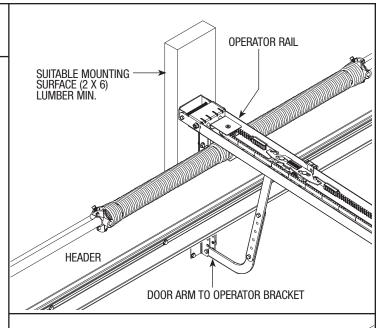
Trolley Operator

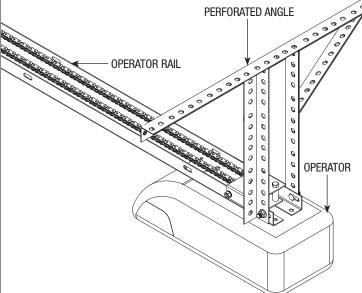
Tools Needed:

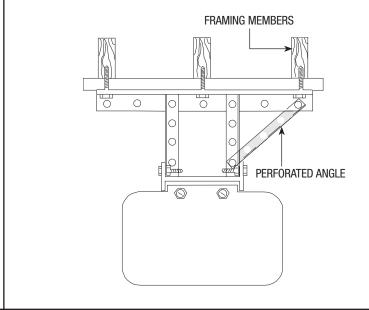
⚠ WARNING

OPERATOR MUST BE TESTED AT TIME
OF INSTALLATION AND MONTHLY
THEREAFTER AS DESCRIBED IN YOUR
INSTALLATION INSTRUCTIONS AND
OWNER'S MANUAL, TO ENSURE THAT
SAFETY FEATURES FUNCTION PROPERLY.
FAILURE TO TEST OR MAKE ANY
NECESSARY ADJUSTMENTS OR REPAIRS,
MAY RESULT IN SEVER OR FATAL INJURY.

- Install operator rail 1/2" to 1-1/2"
 (13 38 mm) above high arc of top section of the door.
- 2. Mount operator to ceiling so that 1" to 1-1/2" (25 38 mm) clearance is maintained between trolley rail and top section when door is fully open (trolley rail will slope down towards rear).
- 3. Attach door arm to operator bracket installed in Step 11.
- 4. Attach operator rail to suitable mounting surface. (2 x 6 lumber minimum)
- 5. Attach operator to ceiling using perforated angle.
- 6. **IMPORTANT!** PERFORATED ANGLES MUST BE SECURELY ATTACHED TO SOUND FRAMING MEMBER(S).







Cleaning Your Steel And Fiberglass Garage Door

IMPORTANT: DO NOT USE A PRESSURE WASHER ON GARAGE DOOR!

While factory-applied finishes on garage doors are durable, it is desirable to clean them on a routine basis. Some discoloration of the finish may occur when a door has been exposed to dirt-laden atmosphere for a period of time. Slight chalking may also occur as a result of direct exposure to sunlight.

Cleaning the door will generally restore the appearance of the finish. To maintain an aesthetically pleasing finish of the garage door, a periodic washing of the garage door is recommended.

A mild detergent solution consisting of one cup detergent (with less than 0.5% phosphate) dissolved into five gallons of warm water is recommended to aid in the removal of most dirt.

NOTES: The use of detergents containing greater than 0.5% phosphate is not recommended for use in general cleaning of garage doors.

NOTES: Be sure to clean behind weather stripping on both sides and top of door.

CAUTION: NEVER MIX CLEANSERS OR DETERGENTS WITH BLEACH.

GLASS CLEANING INSTRUCTIONS

Clean with a mild detergent solution (same as above) and a soft cloth. After cleaning, rinse thoroughly.

ACRYLIC CLEANING INSTRUCTIONS

Clean acrylic glazing with nonabrasive soap or detergent and plenty of water. Use your bare hands to feel and dislodge any caked on particles. A soft, grit-free cloth, sponge or chamois may be used to wipe the surface. Do not use hard or rough cloths that will scratch the acrylic glazing. Dry glazing with a clean damp chamois.

NOTE: DO NOT USE any window cleaning fluids, scouring compounds, gritty cloths or solvent-based cleaners of any kind.

Steel Preparation For Painting

STEEL (SURFACE PREPARATION FOR PAINTING)

Wax on the surface must be removed or paint peeling/flaking will result. To remove this wax, it will be necessary to lightly scuff the surface with a fine steel wool pad, saturated with soapy water. A final wipe and rinse should be done with clean water only, to remove any loose particles and any soapy film residue.

Surface scratches, which have not exposed the metal substrate, can be lightly buffed or sanded out with 0000 steel wool or No. 400 sand paper. Care must be taken to not expose the substrate under the paint. Once the substrate is exposed, the likelihood for rusting is greatly increased.

If substrate is exposed, it must be treated to prevent rust from forming. Sand the exposed area lightly and paint with a high quality metal primer, specifically intended for galvanized surfaces, to protect the area from corrosion. Allow for drying time shown on primer can label before applying topcoat.

The surface of the factory-applied finish, that is being painted, must not be too smooth, or the paint will not adhere to it. It is advisable to test in an inconspicuous area, to evaluate adhesion. If poor adhesion is observed, surface preparation for painting the factory-applied finish must be repeated until desired results are achieved. Again, care must be taken to not expose the substrate under the paint.

STEEL (PAINTING)

After surface has been properly prepared, it must be allowed to dry thoroughly, and then coated immediately with premium quality latex house paint. Follow paint label directions explicitly. Oil base or solvent base paints are not recommended. Please note that if substrate is exposed and not properly primed, painting with latex paint may cause accelerated rusting of the steel in the exposed area.

NOTES:

- 1. Repainting of finish painted steel doors cannot be warranted, as this condition is totally beyond the door manufacturer's control.
- 2. Consult a professional coatings contractor if in doubt about any of the above directions.
- 3. Follow directions explicitly on the paint container labels for proper applications of coatings and disposal of containers. Pay particular attention to acceptable weather and temperature conditions in which to paint.

Fiberglass Refinishing And Or Finishing

Refinishing

The top coat on a factory finished fiberglass door may require a re-coat after 1-3 years if the surface appears chalky or faded. Reapply a top coat as follows: (Always test on a small area prior to top coating the entire door)

1. Clean surfaces with soap and water, mineral spirits or naptha.

NOTE: Light scuffing of surface may be required using Scotch-Brite[™] pads.

2. Apply a commercial brand of exterior grade top coat for fiberglass, following the manufacturer's instructions.

Finishing

It is recommended that the door be purchased pre-finished due to the size of the door, the required spray equipment and the quality problems that could result. Wayne-Dalton assumes no liability for non-factory finished doors. If finishing is performed, use exterior commercial grade finishing kits approved for use on fiberglass or commercially available exterior grade water based or oil based paint. The customer assumes all liability for the finishing.

Lifetime Limited Warranty Model 9800

Subject to the terms and conditions contained in this Lifetime Limited Warranty, Wayne-Dalton Corp. ("Manufacturer") warrants the sections of the door for as long as you own the door with the exception of the items that follow which is described at the top of this page. These exceptions will be warranted for a period of THREE (3) YEARS from the date of installation against:

- (i) Delamination of the fiberglass skin or peeling of the original factory-applied coating on the door as a result of a defect in the original fiberglass skin where the door sections and the original fiberglass skin and factory-applied coating: (a) have not been subjected to adverse atmospheric conditions or contaminates (such as salt water or other marine environment, or to toxic or abrasive substances, including those in the air); (b) have been maintained in compliance with Manufacturer's recommendations; and (c) have not been subject to physical abrasion, impacted by a hard objects, or have been punctured.
- (ii) The door becoming inoperable due to rust-through of the steel skin backer from the core of the door section, caused by cracking, splitting, or other deterioration of the steel skin, or due to structural failure caused by separation or degradation of the foam insulation.
- (iii) Peeling, cracking, chalking or fading of the factory-applied coating, from the time of installation. If the door is re-stained or re-painted, the warranty for the factory-applied coating is void.

The Manufacturer warrants the garage door hardware (except springs) and the tracks of the above-described door, for as long as you own the door, against defects in material and workmanship, subject to all the terms and conditions below.

The Manufacturer warrants those component parts of the door not covered by the preceding provisions of this Lifetime Limited Warranty against defects in material and workmanship for a period of **ONE (1) YEAR** from the date of installation.

After a period of **TWENTY (20) YEARS**, from time of installation, replacement of Lifetime Limited Warranty materials will be pro-rated at 50 per cent of Manufacturer's published list pricing at time of claim, and you must pay this amount.

This Limited Warranty is extended only to the person who purchased the product and continues to own the premises (where the door is installed) as his/her primary residence ("Buyer"). This Limited Warranty does not apply to residences other than primary, or to commercial or industrial installations, or to installations on rental property (even when used by a tenant as a residence). This Limited Warranty is not transferable to any other person (even when the premises is sold), nor does it extend benefits to any other person. As a result this Limited Warranty does NOT apply to any person who purchases the product from someone other than an authorized Wayne-Dalton dealer or distributor.

The Manufacturer will not be responsible for any damage attributable to improper storage, improper installation, or any alteration of the door or its components, abuse, damage from corrosive fumes or substances, salt spray or saltwater air, fire, Acts of God, failure to properly maintain the door, or attempt to use the door, its components or related products for other than its intended purpose and its customary usage. This Limited Warranty does not cover ordinary wear.

This Limited Warranty will be voided if any holes are drilled into the door, other than those specified by the Manufacturer.

THIS LIMITED WARRANTY COVERS A CONSUMER PRODUCT AS DEFINED BY THE MAGNUSON-MOSS ACT. NO WARRANTIES, EXPRESS OR IMPLIED (INCLUDING BUT NOT LIMITED TO THE WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE) WILL EXTEND BEYOND THE TIME PERIOD SET FORTH IN **UNDERSCORED BOLD FACE TYPE** IN THIS LIMITED WARRANTY, ABOVE.

• Some States do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

Any claim under this Limited Warranty must be made in writing, within the applicable warranty period, to the dealer from which the product was purchased.

Unless the dealer is no longer in business, a written claim to the Manufacturer will be the same as if no claim had been made at all.

At the Manufacturer's option, pursuant to the dealer having notified the Manufacturer of a warranty claim, a service representative may inspect the product on site, or Buyer may be required to return the product to the Manufacturer at Buyer's expense. Buyer agrees to cooperate with any representative of the Manufacturer and to give such representative full access to the product with the claimed defect and full access to the location of its installation.

If the Manufacturer determines that the claim is valid under the terms of this Limited Warranty, the Manufacturer will cause the defective product to be repaired or replaced. The decision about the manner in which the defect will be remedied will be at the discretion of the Manufacturer, subject to applicable law. THE REMEDY WILL COVER ONLY MATERIAL. THIS LIMITED WARRANTY DOES NOT COVER OTHER CHARGES, SUCH AS FIELD SERVICE LABOR FOR REMOVAL, INSTALLATION, PAINTING, SHIPPING, ETC.

Any repairs or replacements arranged by Manufacturer will be covered by (and subject to) the terms, conditions, limitations and exceptions of this Limited Warranty; provided, however, that the installation date for the repaired or replaced product will be deemed to be the date the original product was installed, and this Limited Warranty will expire at the same time as if there had been no defect. If a claim under this Limited Warranty is resolved in a manner other than described in the immediately preceding paragraph, then neither this Limited Warranty nor any other warranty from the Manufacturer will cover the repaired or replaced portion of the product.

THE REMEDIES FOR THE BUYER DESCRIBED IN THIS LIMITED WARRANTY ARE EXCLUSIVE and take the place of any other remedy. The liability of the Manufacturer, whether in contract or tort, under warranty, product liability, or otherwise, will not go beyond the Manufacturer's obligation to repair or replace, at its option, as described above. THE MANUFACTURER WILL NOT UNDER ANY CIRCUMSTANCES BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, including (but not limited to) damage or loss of other property or equipment, personal injury, loss of profits or revenues, business or service interruptions, cost of capital, cost of purchase or replacement of other goods, or claims of third parties for any of the foregoing.

Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to
vou.

No employee, distributor, dealer, representative, or other person has the authority to modify any term or condition contained in this Limited Warranty or to grant any other warranty on behalf of or binding on the Manufacturer, and anyone's attempt to do so will be null and void.

Buyer should be prepared to verify the date of installation to the satisfaction of the Manufacturer.

The rights and obligations of the Manufacturer and Buyer under this Limited Warranty will be governed by the laws of the State of Ohio, USA, to the extent permitted by law.

This Limited Warranty gives you specific legal rights and you may also have other rights, which may vary from State to State.

Thank you for your purchase www.wayne-dalton.com